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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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08/470,571 06/06/95 HARVEY

EXAMINER

THOMAS J SCOTT JR
HOWREY & SIMON
1299 PENNSYLVANIA AVENUE NW
WASHINGTON DC 20004

LM61/0331

ART UNIT	PAPER NUMBER
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DATE MAILED: 12

03/31/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 08/06/97

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 56-92 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 56-92 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claims _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☐ Notice of Reference Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

JACK CHIANG
PRIMARY EXAMINER

- SEE OFFICE ACTION ON THE FOLLOWING PAGES -

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DETAILED ACTION

1. This Office Action is responsive to the amendment(s) filed on 08/06/97.

DOUBLE PATENTING V.S. PATENTS

2. A double patenting analysis against previous patents has not been made.
3. In view of further analysis and applicant's arguments, the rejection of the claims in the instant application under double patenting based on the broad analysis of *In re Schneller* as set forth in paragraphs 7-10 of the previous Office Action has been withdrawn.
4. The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985) *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

DOUBLE PATENTING BETWEEN APPLICATIONS

5. Conflicts exist between claims of the following related co-pending applications which includes the present application:

#	Ser. No.	#	Ser. No.	#	Ser. No.
1	397371	2	397582	3	397636
4	435757	5	435758	6	437044
7	437045	8	437629	9	437635
10	437791	11	437819	12	437864
13	437887	14	437937	15	438011
16	438206	17	438216	18	438659
19	439668	20	439670	21	440657
22	440837	23	441027	24	441033
25	441575	26	441577	27	441701

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28	441749	29	441821	30	441880
31	441942	32	441996	33	442165
34	442327	35	442335	36	442369
37	442383	38	442505	39	442507
40	444643	41	444756	42	444757
43	444758	44	444781	45	444786
46	444787	47	444788	48	444887
49	445045	50	445054	51	445290
52	445294	53	445296	54	445328
55	446123	56	446124	57	446429
58	446430	59	446431	60	446432
61	446494	62	446553	63	446579
64	447380	65	447414	66	447415
67	447416	68	447446	69	447447
70	447448	71	447449	72	447496
73	447502	74	447529	75	447611
76	447621	77	447679	78	447711
79	447712	80	447724	81	447726
82	447826	83	447908	84	447938
85	447974	86	447977	87	448099

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88	448116	89	448141	90	448143
91	448175	92	448251	93	448309
94	448326	95	448643	96	448644
97	448662	98	448667	99	448794
100	448810	101	448833	102	448915
103	448916	104	448917	105	448976
106	448977	107	448978	108	448979
109	449097	110	449110	111	449248
112	449263	113	449281	114	449291
115	449302	116	449351	117	449369
118	449411	119	449413	120	449523
121	449530	122	449531	123	449532
124	449652	125	449697	126	449702
127	449717	128	449718	129	449798
130	449800	131	449829	132	449867
133	449901	134	450680	135	451203
136	451377	137	451496	138	451746
139	452395	140	458566	141	458699
142	458760	143	459216	144	459217
145	459218	146	459506	147	459507

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148	459521	149	459522	150	459788
151	460043	152	460081	153	460085
154	460120	155	460187	156	460240
157	460256	158	460274	159	460387
160	460394	161	460401	162	460556
163	460557	164	460591	165	460592
166	460634	167	460642	168	460668
169	460677	170	460711	171	460713
172	460743	173	460765	174	460766
175	460770	176	460793	177	460817
178	466887	179	466888	180	466890
181	466894	182	467045	183	467904
184	468044	185	468323	186	468324
187	468641	188	468736	189	468994
190	469056	191	469059	192	469078
193	469103	194	469106	195	469107
196	469108	197	469109	198	469355
199	469496	200	469517	201	469612
202	469623	203	469624	204	469626
205	470051	206	470052	207	470053

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208	470054	209	470236	210	470447
211	470448	212	470476	213	470570
214	470571	215	471024	216	471191
217	471238	218	471239	219	471240
220	472066	221	472399	222	472462
223	472980	224	473213	225	473224
226	473484	227	473927	228	473996
229	473997	230	473998	231	473999
232	474119	233	474139	234	474145
235	474146	236	474147	237	474496
238	474674	239	474963	240	474964
241	475341	242	475342	243	477547
244	477564	245	477570	246	477660
247	477711	248	477712	249	477805
250	477955	251	478044	252	478107
253	478544	254	478633	255	478767
256	478794	257	478858	258	478864
259	478908	260	479042	261	479215
262	479216	263	479217	264	479374
265	479375	266	479414	267	479523

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268	479524	269	479667	270	480059
271	480060	272	480383	273	480392
274	480740	275	481074	276	482573
277	482574	278	482857	279	483054
280	483169	281	483174	282	483269
283	483980	284	484275	285	484276
286	484858	287	484865	288	485282
289	485283	290	485507	291	485775
292	486258	293	486259	294	486265
295	486266	296	486297	297	487155
298	487397	299	487408	300	487410
301	487411	302	487428	303	487506
304	487516	305	487526	306	487536
307	487546	308	487556	309	487565
310	487649	311	487851	312	487895
313	487980	314	487981	315	487982
316	487984	317	488032	318	488058
319	488378	320	488383	321	488436
322	488438	323	488439	324	488619
325	488620	326	498002	327	511491

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328 485773

329 113329

6. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. The attached Appendix provides clear evidence that such conflicting claims exist between the 329 related co-pending applications identified above. However, an analysis of all claims in the 329 related co-pending applications would be an extreme burden on the Office requiring millions of claim comparisons.

In order to resolve the conflict between applications, applicant is required to either:

- (1) file terminal disclaimers in each of the related 329 applications terminally disclaiming each of the other 329 applications, or;
- (2) provide an affidavit attesting to the fact that all claims in the 329 applications have been reviewed by applicant and that no conflicting claims exists between the applications. Applicant should provide all relevant factual information including the specific steps taken to insure that no conflicting claims exist between the applications, or;
- (3) resolve all conflicts between claims in the above identified 329 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 329 applications (note: the five examples in the attached Appendix are

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merely illustrative of the overall problem. Only correcting the five identified conflicts would not satisfy the requirement).

Failure to comply with the above requirement will result in abandonment of the application.

INFORMATION DISCLOSURE STATEMENTS

7. Receipt is acknowledged of applicant's Information Disclosure Statements filed on 1/30/96, 2/1/96, 4/5/96, 4/7/97. In view of the unusually large number of references cited in the instant application (approximately 2,200 originally and 645 in the subsequent IDS) and the failure of applicant to point out why such a large number of references is warranted, these references have been considered in accordance with 37 C.F.R. 1.97 and 1.98 to the best ability by the examiner with the time and resources available.

The foreign language references cited therein where there is no statement of relevance or no translation are not in compliance with 37 C.F.R. 1.98 and have not been considered. Numerous references listed in the IDS are subsequent to applicant's latest effective filing date of 9/11/87, therefore, the relevancy of these references is unclear. Also cited are numerous references that are apparently unrelated to the subject matter of the instant invention such as: US Patent # 33,189 directed toward a beehive, GB 1565319 directed toward a chemical compound, a cover sheet with only the word "ZING", a computer printout from a library search with the words "LST" on it and a page of business cards including that of co-inventor James Cuddihy, among

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others. The relevancy of these references cannot be ascertained. Furthermore, there are several database search results listed in foreign languages (such as German) which list only the title and document information; no copy has been provided, therefore, these references have not been considered.

CLAIM REJECTIONS - 35 USC § 112

8. Claims 56-92 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

37 C.F.R. 1.75(d)(1) requires that:

“the terms and the phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description”.

The following limitations were not supported by the specification as originally filed:

In claim 56, it claims receiving and transmitting data for use with an interactive video apparatus, the steps of: “displaying video that at least one of describes and promotes a transaction ... to receive input from a customer”, “receiving a reply from said customer ... having a processor ... at least one processor instruction ... process said reply and delivers to a first output device ... an

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acknowledgment that designates said transaction”, “selecting one of code that designates said transaction and a datum that designates said transaction..., ... a means for communicating said processed reply to a remote site”, “communicating said selected one of said code and said datum to said remote site, ... a network that includes at least one receiver site, at least one processor site and at least one transmitter site”, “delivering said at least one processor instruction ...”, “delivering one of said transaction and said acknowledgment on the basis of said at least one processor instruction...”etc.. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method. Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

In claims 57-74 and 89-91, in combination with claim 56, they further claim “said at least one processor instruction ... to process at least one discrete signaling appearance”, the step of: “receiving one of a broadcast information transmission ... containing a video graphic and said ... signaling appearance ... designating second code”; “a control signal is generated based on said at least one processor instruction”, having one step of the group consisting of: “selecting a video graphic in response to said generated control signal”, “outputting a video graphic ...”, “processing user input ...”, “generating at least a portion of a video graphic image ...”, “outputting one of a simultaneous presentation ...”; the step of controlling one of: “(I) a receiver, ... (vi) a second

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output device ...”; “generating ... said at least one receiver specific datum ...”, “outputting one of a simultaneous presentation ...”; “receiving a plurality of discrete signaling appearances ...”, “assembling said plurality of discrete signaling appearances into said at least one processor instruction, ... assembling said code ...”; “communicating said at least one processor instruction to said designated specific processor”; “said at least one processor instruction further designates a specific user input to process, ... generating output by processing said specific user input”; “receiving at least one control signal which enables a receiver station to at least one of (i) process said at least one processor instruction and (ii) output said at least a portion of said at least one video graphic”, “enabling said receiver station to said at least one of (i) process said at least one processor instruction and (ii) output said at least a portion of said at least one video graphic ...”; “said at least one processor instruction designates a second code which generates ... video graphic ...”, “communicating to a remote station data evidencing at least one of the availability, use and usage of at least one of (i) said at least one processor instruction, (ii) said designated second code, (iii) said ... video graphic”; “the step of selecting evidence information ... designates at least one of (1) a video, ... (12) an indication of copyright”, “the steps of communicating said second code to said processor ... one selected from the group consisting of (1) receiving a signal containing said data, ... (6) delivering a receiver specific datum at said interactive video apparatus one of simultaneously and sequentially with at least one of said video and said data”; “one of said at least one processor instruction is delivered in a multichannel signal ..., the step of tuning a converter to receiver said at least one processor instruction”; “one step selected from the

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group consisting of : programming ... to query a remote data source ..., delivering ...processed information of a stored datum ..., storing said reply ..., and assembling ... data evidencing said reply”; “storing a subscriber instruction to receive at least one of specific videos ...”, “receding said at least one of said specific videos ... in accordance with said subscriber instruction”; “programming said processor to respond to at least one of data and an instruct signal ...”, “receiving said information transmission ...”, “inputting at least a portion of said ... transmission to a control signal detector”, “detecting said at least one of said data ...”, “passing said at least one of said data ... to said processor”; “said at least one processor instruction is embedded in a non-visible portion of a signal containing said video”; “said at least one processor instruction is embedded in a non-visible portion of a TV signal”; “said data include at least one of text and at least one video graphic for output”; “receiving one of a broadcast information transmission ... containing a video graphic and said at least one processor instruction”, “ receiving one of a broadcast information transmission ... containing said at least one discrete signaling appearance and said at least one processor instruction”; “ receiving one of a broadcast information transmission ... containing downloadable code and said at least one processor instruction” etc..

It is questionable that the present original specification has sufficient disclosure in describing the above steps and method. Therefore, it can be considered as unenabling and new matter.

(Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

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In claim 75, it claims delivering a video presentation at at least one receiver station of a plurality of receiver stations each of which includes a receiver, a signal detector a processor, an output device, to detect the presence of at least one control signal and programmed to process downloadable processor instructions, said video presentation including (a)a first video image and (b)a second video image, said second video image (I)containing at least one datum ... (ii)overlaying said first video image; the step of: “receiving ... said downloadable processor instructions ... instruct said at least one receiver station to one of generate and output a specific portion of said video presentation, ... having ... a target processor to process data”, “transferring said ... instructions...”, “receiving said ... control signal, ... to control one of (I)an execution of said ... instructions and (ii)a delivery of ... said video presentation”, “transferring said ... control signal ...”, “transmitting an information transmission comprising the downloadable processor instructions and said at least one control signal” etc.. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method. Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

In claims 76-79, in combination with claim 75, they further claim “receiving at least a portion of said first video image ... at said transmitter station”, “transmitting said ... video image

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... to said at least one receiver station”; “one of downloadable code ... is embedded in ... a signal contain ... video image”; “said video presentation is displayed ... and downloadable code programs ... (I)to output at least one of video, audio ... (ii)to process a viewer reaction ... (iii) to select information that supplement said video presentation”; “said at least one control signal contains downloadable code” etc.. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method. Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

In claim 80, it claims delivering a video presentation ... includes a receiver, a signal detector, a processor, and an output device, to detect the presence of at least one signal; the steps of: “receiving ... video...”, “delivering a signal containing said video ... an instruct signal that instruct ... at least one of (I)one of generate and output a specific portion of a video presentation and (ii)deliver data ...”, “receiving ... at least one control signal ... controls the communication of at least one of said video and said instruct signal”, “transmitting said at least one control signal from said origination transmitter before a specific time”. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method. Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

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In claims 81-83 and 92, in combination with claim 80, they further claim “said at least one control signal comprises at least one of code and datum ... identifies at least one of (I)said video and (ii)data ...; the step of: “transmitting ... a second control signal ... controls the communication of said at least one of said video ...”; “embedding a specific one of said at least one control signal in ... a signal containing said video ...”; “said specific time is a scheduled time...”; “said at least one control signal ... to control at least one of a plurality of selective transfer devices at different time” etc.. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method. Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

In claim 84, it claims delivering a video presentation at at least one receiver station of a plurality of receiver stations each of which includes a receiver, a signal detector a processor, an output device, to detect the presence of at least one signal; the steps of: “receiving video...”, “delivering said video...”, “receiving at least one instruct signal ... instruct ... to deliver ... said video and at least one of (I)at least one receiver specific datum and (ii)at least one datum that is at least one of described and promoted in said video”, “transferring said at least one instruct signal ...”, “transmitting said video and said at least one instruct signal ...” etc.. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method.

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Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

In claims 85-88, in combination with claim 84, they further claim “at least one of identification data ... is embedded in a signal containing said video”; “transmitting directs said video ... at the same time ... and responds to said at least one instruct signal concurrently”; “transmitting directs said video ... at the different time ... and responds to said at least one instruct signal at a different time”; “receiving said video ..., communicating said video ..., storing said video ... prior to delivering said video to said transmitter” etc.. It is questionable that the present original specification has sufficient disclosure in describing the above steps and method.

Therefore, it can be considered as unenabling and new matter. (Further, it is questionable that the previous patented specification (the six patents that the present application is claiming as a continuation application) has adequate description for the above steps and method), see also argument below.

112, SECOND PARAGRAPH REJECTION

9. Claims 56-74, 77-79 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- delay of paper
- which that info
- info + info
- data

With respect to claim 56:

lines 11, 14 and 15, it claims “an acknowledgment that designates said transaction”, “code that designates said transaction”, “a datum that designates said transaction ...”. Is it claiming the same feature? If it is, claimed languages should be consistent.

Also, line 16, what is “a means” referring to?

With respect to claim 57:

line 3, what is “at least one discrete signaling appearance” referring to? (It may also lack of support from the original disclosure, see 112, first paragraph rejection above).

With respect to claims 61:

lines 1-2 have no clear meaning, such as “said one of said code and said datum is said code”;
line 4 has a similar problem as claim 57.

With respect to claim 64:

line 2, “at least a portion of at least one video graphic” has no clear meaning.

With respect to claim 65:

line 2, “a second code” is called, is it different from the “code”, “datum”, “an acknowledgment” defined in claim 56?

Also, it has a similar problem as claim 64.

With respect to claim 66:

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lines 2-4 have no clear meaning, such as “at least one of said code and said datum is at least one of stored and communicated to a remote data collection station”.

With respect to claim 67:

line 2, “a second code” is called, is it different from the “code”, “datum”, “an acknowledgment” defined in claim 56?

The terms “said data”, “said video output device, said audio output device and said print output device” lack antecedent basis, rendering these claims indefinite.

With respect to claim 70:

last line, “said subscriber instruction” lacks antecedent basis.

With respect to claim 71:

lines 2-3, “at least one of data and an instruct signal” are again defined. Are they different from those defined in claim 56? If they are not, claimed languages should be consistent.

With respect to claims 89-91:

claims 89-91 have a similar problem as claim 57.

Also, “a second code” is defined, is it different from the code defined in claim 56?

With respect to claim 75:

lines 7-8 have no clear meaning, such as “(I)containing at least one datum that at least one of completes and supplement said first video image and (ii) overlaying said first video image”.

With respect to claim 77:

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lines 1-3 have no clear meaning, such as “one of downloadable code and identification data in respect of said downloadable code ...”.

Also, are “one of downloadable code” and “identification data” different from the “control signal”, “datum”, “downloadable instructions” defined in claim 75?

With respect to claim 78:

lines 2-3, is “downloadable code” different from the “control signal”, “datum”, “downloadable instructions” defined in claim 75?

With respect to claim 79:

line 2, is “downloadable code” different from the “control signal”, “datum”, “downloadable instructions” defined in claim 75?

With respect to claim 80:

lines 4 and 8, it claims “at least one signal” and “a signal”. Are they the same? If they are, claimed languages should be consistent.

Line 9, what is “said signal” referring to (lines 4 or 8)?

With respect to claim 84:

line 11 has no clear meaning, such as “... at least one of (I) at least one ... (ii)at least one datum that is at least one of...”.

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CLAIM REJECTIONS - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

11. Rejections were made based upon the examiner's understanding of the scope of the claims.

Any amendments to overcome the rejections under 35 U.S.C. § 112 that change the examiner's understanding of the scope of the claims may necessitate new grounds for rejection.

12. Claims 56-74 and 89-91 are rejected under 35 U.S.C. § 102(b) as being anticipated by

Campbell et al. (4,536,791).

With respect to claim 56:

Campbell discloses an addressable cable TV control system that anticipates the claimed method.

Specifically, the pay-per-view premium feature of Campbell discussed on col. 17, lines 42-64

reads on the claimed method, including displaying video that describes or promotes a transaction

(the printed message prompting the user to enter the appropriate key number "promotes" the

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transaction), the interactive video having an input device (keyboard 168); receiving a reply from a customer (the user enters the key number), the interactive video apparatus having a processor (microprocessor unit 410) as claimed; processing said reply and selecting a code or datum designating said transaction and communicating said selected code or datum to a remote site (when the key number is entered correctly, the converter 40 requests the central data control system 12 at the head end to authorize the reception of the channel, also passing along appropriate transactional information for billing purposes), said interactive video apparatus and said remote site comprising a network of receiver/processor/transmitter sites; delivering one or more processor instructions at said interactive video apparatus; and delivering the requested transaction (the data control system commands the converter to allow or disallow the selected program, see col. 17, lines 61-64).

Note: the printed message prompting the user to enter the appropriate key number is considered to "promote" the transaction.

With respect to claim 57:

The channel control word 200 including a descrambling code 208 and the other signal words are considered to read on the claimed "one or more processor instructions". The one or more instructions enable the interactive video apparatus to process one or more signal words (see Fig. 11), and the claimed method further includes the step of receiving a cablecast transmission containing a video graphic (the program) one or more instructions.

With respect to claim 58:

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Campbell further anticipates the claimed step of processing user input based on said generated control signal (the user input is compared to the user key number).

With respect to claim 59:

Upon the entering of the correct key number and authorization of the selected program, the program is descrambled by the video descrambler 116 (this follows from the discussion in columns 8 and 9). This reads on the step of controlling a decryptor.

With respect to claim 60:

The microprocessor 410 and the memory 130 constitute the claimed "computer". The data stored in memory 130 is outputted to a TV for display. The discussion at col. 9, lines 35-37 and col. 17, lines 28-31 indicates that the data from the memory can be displayed with the video signal.

With respect to claim 61, 62, 65 and 67:

Fig. 11 illustrates a plurality of codes or instructions. Since these codes are executed (e.g., by comparing Fig. 12) by the processor 104, they can be considered as "executable codes". In addition, since each receiver station contains a processor 104, when the identified receiver station receives the instructions (Fig. 11), it can be considered as "the instructions to a specific processor". The discussion at col. 18, lines 13-19 indicates that usage data or monitored data is communicated to a remote location.

With respect to claim 63:

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The user inputs a key number which eventually generates an output after authorization. This reads on designating a specific user input to process and generating an output by processing said specific user input.

With respect to claim 64:

The method discussed above with respect to claim 56 (col. 17, lines 42-64) anticipate the claimed steps.

With respect to claim 66:

The billing information that is transmitted to a remote data collection center (the data control system 12) identifies a use of programming, and reads on the claimed limitations.

With respect to claim 68:

Campbell anticipates the claimed limitations, as should be clear from Figs. 1 and 6. The cable TV signal is a multichannel signal transmitted by a remote cable station (the cable head end 11) and the tuner 106 is tuned to receive the instructions.

With respect to claim 69:

The method of Campbell includes sending information to the remote data collection center after the key number is entered by the user, the information being used to authorize the transmission and for billing purposes. This reads on the step of assembling and communicating to a remote data site data evidencing the subscriber reply.

With respect to claim 70:

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The subscriber in Campbell chooses to watch a specific video (the pay-per-view premium program). As this instruction is first compared to a key number and then used for billing purposes, it is inherent that the instruction is stored so that the system has a record of it.

With respect to claim 71:

The addressable converter 40 of Campbell, which receives embedded control signals from a remote source, detects them, and processes the signals appropriately anticipates the claimed steps.

With respect to claims 72 and 73, 89-91:

The instructions of Campbell are embedded in a non-visible portion of a television signal containing the video (see Figs. 2A and 11).

With respect to claim 74:

It is clear from the disclosure of Campbell that the data can include text that is embedded in the video signal.

13. Claims 75-79 are rejected under 35 U.S.C. § 102(b) or (e) as being anticipated by Hedger ("Broadcast Telesoftware: Experience with ORACLE", 1980).

With respect to claim 75 and 79:

Hedger discloses a telesoftware system that anticipates the claimed method, the system including a plurality of receiver stations (terminals), each of which include a receiver, a signal detector, a processor, and an output device (see paragraph 2.1 and Fig. 1). The terminal receives downloadable executable code or software and generates video in response (see, *inter alia*,

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paragraphs 4.1, 4.3, and 4.4). It is inherent that the code is transmitted by a transmitter station upon user request of a particular program (such as mortgage calculation, games, education, etc.). This reads on the claimed method.

With respect to claim 76:

The discussion in paragraph 4.4 anticipates the sequential output of video image and a video presentation.

With respect to claim 77:

The downloadable executable code is teletext that is embedded in video signals.

With respect to claim 78:

The above discussion of claim 76 applies to claim 78 with the output being a sequential output of video/text and a video image.

14. Claims 80 and 82 are rejected under 35 U.S.C. § 102(b) as being anticipated by Gimple et al. (4,430,731).

With respect to claim 80:

Gimple discloses video and data distribution system including a plurality of receiver stations (subscriber terminal units 10), each of which includes a receiver and a signal detector (modem 18, Fig. 2A or modem 501, Fig. 8, see col. 17, lines 44-62), a processor (CPU 521), and an output device (television set 503 or video screen 576), with each receiver station adapted to detect the presence of one or more instruct or control signals (see col. 2, lines 32-49). The system of

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Gimple anticipates the claimed method of receiving video to be transmitted by a remote intermediate transmitter station (the remote video data distribution modules 8), said video having an instruct signal (see col. 3, lines 49-52); receiving one or more control signals which at the remote intermediate transmitter station operate to control the communication of the video; and transmitting said one or more control signals to a transmitter (transceivers 731) before a specific time, wherein the specific time is the time the signal (program) is to be received by the subscriber. Refer to the discussion in cols. 3 and 4.

With respect to claim 82:

The control signals in the system of Gimple are embedded in the DS-1 frame and are stripped out before the video is viewed by the subscriber. This reads on the claimed limitation.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention

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was made, owned by the same person or subject to an obligation of assignment to the same person.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

17. Claims 81, 83 and 92 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Gimple et al. (4,430,731).

With respect to claim 81:

It appears inherent to Gimple that the control signals would include a code or datum which operate to identify the video being transmitted for billing purposes; if not, it would certainly have been obvious to one of ordinary skill in the art at the time of the invention to use such control signals so that the subscriber may be billed accurately. The system of Gimple includes control signals that perform synchronization -- this reads on the claimed second control signal. Refer to the discussion in columns 3-6.

With respect to claims 83 and 92:

It appears inherent that the system of Gimple would have a schedule according to which video programs are transmitted to the subscribers; if not, it would certainly have been obvious to one of

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ordinary skill in the art at the time of the invention to use such a schedule so that the subscribers would be aware of what programs could be viewed at what times.

18. Claims 84-86 are rejected under 35 U.S.C. § 103 as being unpatentable over Gimple et al. (4,430,731) in view of Millar et al. (British Patent Specification 1 370 535).

With respect to claim 84:

The rejection follows from the above discussion of claim 80. The only additional limitation is the delivery of a combined or sequential presentation of the video and *either* one or more receiver specific data *or* one or more data described or promoted in said video. Gimple discusses displaying alphanumeric characters at the bottom of the television screen, but does not specifically mention that the alphanumeric characters would be related to the video. Millar discusses the display of text and video simultaneously so as to show captions that enable, for example, the deaf to watch TV effectively (see page 1, lines 9-24). It would have been obvious to one of ordinary skill in the art at the time of the invention to display sub-titles as suggested by Millar on the TV screen of the subscriber in Gimple since this would enable deaf viewers to better understand the video. This renders obvious the delivery of a combined presentation of video and one or more data described in said video.

With respect to claim 85:

The rejection follows from the above discussion of claim 82.

With respect to claim 86:

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The programs in Gimple are broadcast to the different subscribers at the same time, who receive them at the same time.

19. Claims 87 and 88 are rejected under 35 U.S.C. § 103 as being unpatentable over Gimple et al. (4,430,731) in view of Millar et al. (British Patent Specification 1 370 535) as applied to claims 84-86 above, and further in view of Lambert (4,381,522). In the system described above with respect to claim 84, all programs are transmitted to the different subscribers at the same time. Lambert, however, discloses a system in which the user is able to select what time he or she wishes to view a program. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a system as suggested by Lambert in which a user could select what time to watch a particular program since this frees up the user from having to set his or her schedule according to when certain programs are being broadcast. Such a system renders obvious the steps of transmitting video to a plurality of receiver stations at different times (claim 87) and storing a video signal before transmitting it to a subscriber (claim 88).

27. Claims 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki (DE 2904981) in view of "A Public Broadcaster's View of Teletext in the United States" by Hartford Gunn (hereinafter "Gunn").

Zaboklicki in Figs. 1 and 3 illustrates a receiver station which includes a television receiver (54, 56), a signal detector (3, 40), and a processor 6. The receiver station receives

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digital processing program or telesoftware (“downloadable executable processor instructions”) and one or more address data, control commands, and fragments identifications. The CPU 6 uses the downloaded digital processing program or telesoftware (“downloadable executable processor instructions”) to control the operation of the receiver station (page 10, lines 17-19 and page 16, lines 1-3). Therefore, the downloaded digital processing program are effective to output a specific portion of video portion (e.g., outputting the TV segment identified by the segment ID, page 10, lines 13-18). The steps of receiving and transferring at the transmitter station are inherently steps of Zaboklicki since the receiver station receives both the digital processing program or telesoftware (“downloadable executable codes”) and one or more address data, control commands and fragments identifications. That is, in order for the transmitter station to transmit the telesoftware. It must be first received by the transmitter station and then transferred to a transmitter of the transmitter station for transmission.

Zaboklicki differs from claim 75 of the present invention in that Zaboklicki does not specifically disclose downloading one or more control signals for operating to execute the telesoftware. However, as taught by Gunn (on page 5, lines 1-9), providing a teletext activation signal for activating or executing a software is well known in the art. As Zaboklicki on page 21, line 22 clearly indicates that his system is capable of extracting teletext information, it would have been obvious to an artisan of ordinary skill at the time of the invention to modify the system of Zaboklicki to send a teletext activation signal as taught by Gunn in order allow the system of Zaboklicki to activate the downloaded digital processing program or telesoftware (“downloadable

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executable processor instructions”) remotely. The teletext activation signal (“one or more control signals”) is transmitted from the transmitter station. Therefore, it must be first received by the transmitter station and then transferred to a transmitter of the transmitter station for transmission.

Regarding claim 76, since the receiver station receives TV segments (“video image”), the received TV segments must be transmitted by the transmitter station (Page 10, lines 13-18).

Regarding claim 77, the discussion on page 21, line 22 of Zaboklicki indicates teletext information. In a teletext system, information inherently embedded in the vertical blanking interval of a TV signal.

Regarding claim 78, Zaboklicki also shows a TV receiver 54 for displaying TV signals and input device (Fig. 4) for receiving “viewer reactions” to select information. The discussion on page 9, line 18 also discloses the “supplementary information”.

Regarding claim 79, the modified system of Zaboklicki and Gunn uses the teletext activation signal to execute the downloadable executable processor instructions (software). Therefore, it can be considered as “incorporate at least some of said downloadable executable codes”.

ARGUMENT

In response to the remarks (pages 18-51), in pages 18-21, some of the 112 rejections are overcome, however, some are still remained, see 112 rejections above.

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Also, applicant states that they are under no duty to prospectively reference claim limitations to the specification where the examiner has not specifically identified what is objected to as indefinite, MPEP 2111 is cited. In response to the applicant's comments, the examiner now specifically points out exactly where the objections are, see 112, first and second rejections above.

In pages 21-22, applicants first argues that the reference of Campbell does not qualify as prior art. The examiner disagrees. The Campbells' patent has a parent application which was filed on March 31, 1980 which is clearly *prior* to the priority date (11/3/81) of the present application. As shown by the Campbells' parent application, all the features relied on by the examiner to support the rejection were supported by the Campbells' parent application which has a filing date prior to the priority date of the instant application. In addition, the Campbells' patent (U.S. Patent No. 4,536,791) has a PCT equivalent application (WO819291) which was published on October 1981 which is *prior* to the priority date (11/3/81) of the present application. Consequently, the reference of Campbell is *clearly qualified* as "prior art".

In pages 22-26, applicant argues that Campbell does not anticipate the step of selecting. Applicant also argues that Campbell fails to disclose the selected code or datum indicates ... transaction etc.. The examiner disagrees. Campbell's pay-per-view feature clearly allow the user to select programs by entering code or datum. The code or datum designates the program or transaction and is delivered or communicated to a remote site. The data control system or

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instruction commands the converter to allow or disallow the selected program, see col. 17, lines 61-64 in Campbell.

In pages 26-27, the rejections of Hedger can either be 102 (b) or (e). The rejections are maintained.

In pages 27-28, applicant argues that Hedger fails to disclose a video presentation ..., a control signal ... etc.. The examiner disagrees. Hedger clearly shows the downloadable code or software and generates video. Also, the code is transmitted upon user request of a particular program, such as mortgage calculation, games, education etc..

In pages 29-31, applicant argues that Gimple fails to disclose any of the data signals, information ... the steps of receiving video etc.. The examiner disagrees. Gimple shows the video and data distribution system including receiver stations, a signal detector, a processor etc. (See 10, 18, fig. 2a, 521 etc.). Gimple also shows to detect the instruct or control signals (see col. 2, lines 32-49), receiving and transmitting the control signals (see 731) (see also rejections above).

In pages 31-36, about the combination of Gimple and Millar, applicant argues the motivation of combining the references. Applicant also argues that Gimple does not disclose ... combined or sequential presentation with video, data signals information etc.. This issue has been discussed above, see comments above. Also, the combined teaching of Gimple and Miller will enable the display of text and video simultaneously, the reason to combine the reference is to allow the deaf to watch TV effectively (page 1, lines 9-24).

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In pages 36-39, about claims 75-79, applicant argues that Zaboklicki does not generate or output a specific portion of a video... fails to anticipate ... processor instructions ... control signals etc.. Applicant further argues that Gunn fails to disclose a signal ...processor instructions ... control signal etc.. The examiner disagrees. The combination of Zaboklicki and Gunn shows the receive of address data, control commands and identifications. The CPU 6 uses the processing program to control the operation of the receiver station (see 54, 56, 3, 40, 6, page 10, lines 17-19, page 16, lines 1-3). The downloaded processing program are effective to output a specific portion of video portion, such as outputting the TV segment identified by the segment ID, see page 10, lines 13-18. It also has the receiving and transferring of the data and control commands because these signals must be first received by the transmitter station and then transferred to a transmitter of the transmitter station, see also rejections above.

In pages 39-50, about the Schneller analysis, it is now withdrawn. Therefore, no further discussion is made in regard to this issue.

20. Applicant's arguments with respect to claims 56-92 have been considered but are moot in view of the new ground(s) of rejection.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**


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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Chiang whose telephone number is (703) 305-4728. The examiner can normally be reached on Mon. - Fri. from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista Zele, can be reached on (703) 305-4701. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5403.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


JACK CHIANG
PRIMARY EXAMINER